

REMARKS

Claims 1, 4 to 8 and 10 to 16 are pending in the application, of which Claims 1, 8, 10, 11 and 16 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 3, 5 to 11, 13, 15 and 16 were rejected under 35 U.S.C. § 103 over U.S. Published Appln. No. 2001/0013953 (Uekusa) in view of U.S. Patent No. 5,812,283 (Tachibana). Claims 12 and 14 were rejected under 35 U.S.C. § 103 over Uekusa in view of Tachibana, and in further view of well-known art. Claim 4 was rejected under 35 U.S.C. § 103 over Uekusa in view of Tachibana, and in further view of U.S. Patent No. 6,980,326 (Tsuchiya). Reconsideration and withdrawal of this rejection are respectfully requested.

Turning to specific claim language, amended independent Claim 1 is directed to an image processing apparatus which includes a corrector, arranged to apply, to image data stored in a band memory or a block memory assigned to a memory area, a first correction according to a feature amount of the entire image data, and a second correction which is different from the first correction; a processor, arranged to apply an image process required to print on a print medium to the image data output from said corrector; and a recorder, arranged to print an image on the print medium based on the image data output from the processor. The corrector acquires the feature amount from data of a representative value group of the image data stored in the memory area, and then releases the memory area storing the representative value group to reassign the released memory area to the band memory or the block memory, before execution of the first correction and before execution of the second correction is completed for the entire image data.

The present invention is characterized in that a memory area storing image data is released after a feature amount is acquired from data of a representative value group of the image

data so that the released memory area is reassigned to a band or block memory used in execution of a first correction using the feature amount and a second correction.

For example, since a memory size of a direct printing apparatus which directly receives image data from a digital camera or storage medium is small to decrease the cost of memory, such an apparatus cannot store the entire image data provided from the digital camera or storage medium. According to the invention, the feature amount is acquired from the data of the representative value group of the image data, thus the feature amount can be acquired using a small memory size. Furthermore, the memory area is efficiently used as described above, thus such apparatus can quickly and appropriately perform image processing on the entire image data received from the digital camera or memory medium.

In the Advisory Action dated May 28, 2008, the Examiner alleged that Uekusa discloses that a feature amount is acquired from a representative value group of image data as described in Abstract and Fig. 12 and its corresponding text. However, Applicants submit that there is no disclosure of a “representative value group of image data”, or any possible corresponding data structure, from which a feature amount is acquired in Uekusa. Instead, Uekusa describes color balance correction as indicated in Figs. 12A to 12C. Fig. 12A indicates an ideal color solid, Fig. 12B indicates a color solid of input image data having a gray line shifted from a gray line of the ideal color solid (paragraph 0051), and Fig. 12C indicates a color solid of the image data on which the color balance correction is performed (paragraph 0053). Applicants submit that the gray line may be considered a feature amount of the image data; however, Uekusa does not disclose acquiring the gray line from the representative value group of the input image data. As clearly indicated in Uekusa, the gray line is defined by determining highlight and shadow points, which define the gray line, of the input image data by generating a cumulative

frequency histogram of RGB signals of the input image data (paragraph 0046). In other words, a system in accordance with the disclosures of Uekusa acquires the gray line as the feature amount from the entire image data.

Furthermore, the Examiner contended that Tachibana discloses a feature amount that is acquired from image data stored in a memory area and then the memory area storing the image data is released. Specifically, Tachibana discloses in Fig. 6 that a release mode is set (S4) after receiving and recoding processes are started (S2, S3), and when an error occurs (S5), an error process according to the release mode is executed (S7). Furthermore, Figs. 8 and 9 disclose that when a memory hold mode is set (S51) and the available memory amount less than the predetermined value (S53), memory blocks in which data have been recorded are released (S54), and when a memory release mode is set (S40), one block memory is released (S41). Applicants note that the process flow shown in Fig. 9 is executed in step S39 of Fig. 8. This process is claimed as releasing a predetermined amount of image data after the completion of recording of the predetermined amount of image data during the recoding of a page of the image data. (See Claim 1 of Tachibana) However, Tachibana fails to disclose or suggest acquisition of the feature amount or correction of image data using a band or block memory assigned to a memory area as featured in Claim 1 of the present application..

Therefore, neither Uekusa nor Tachibana disclose or suggest a memory area storing image data that is released after a feature amount is acquired from data of a representative value group of the image data so that the released memory area is reassigned to a band or block memory used in execution of a first correction using the feature amount and a second correction. Therefore, even if Uekusa nor Tachibana were combined, which Applicants do not concede is permissible, such a combination would still not include the feature of a memory area storing

image data that is released after a feature amount is acquired from data of a representative value group of the image data so that the released memory area is reassigned to a band or block memory used in execution of a first correction using the feature amount and a second correction. In addition, as neither Uekusa nor Tachibana disclose or suggest correction of image data using a band or block memory assigned to the memory area, their combination would also fail to disclose or suggest such a feature.

In light of these deficiencies of Uekusa and Tachibana, Applicants submit that amended independent Claim 1 is now in condition for allowance and respectfully request same.

Independent Claims 8, 10, 11 and 16 are directed to a method, computer-readable medium, a printer and an inkjet printer, respectively, substantially in accordance with the apparatus of Claim 1. Accordingly, Applicants submit that Claims 8, 10, 11 and 16 are also now in condition for allowance and respectfully requests same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention; however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

CONCLUSION

No claim fees are believed due; however, should it be determined that additional claim fees are required, the Director is hereby authorized to charge such fees to Deposit Account 50-3939.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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